Reference Manual

R PS 5010

Power Supply

Series 3000 / 5000

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Germany
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Warranty

LYNX Technik AG warrants that the product will be free from defects in materials and workmanship for a period of two (2) years from the date of shipment. If this product proves defective during the warranty period, LYNX Technik AG at its option will either repair the defective product without charge for parts and labor, or will provide a replacement in exchange for the defective product.

In order to obtain service under this warranty, customer must notify LYNX Technik of the defect before expiration of the warranty period and make suitable arrangements for the performance of service. Customer shall be responsible for packaging and shipping the defective product to the service center designated by LYNX Technik, with shipping charges prepaid. LYNX Technik shall pay for the return of the product to the customer if the shipment is within the country which the LYNX Technik service center is located. Customer shall be responsible for payment of all shipping charges, duties, taxes and any other charges for products returned to any other locations.

This warranty shall not apply to any defect, failure, or damage caused by improper use or improper or inadequate maintenance and care. LYNX Technik shall not be obligated to furnish service under this warranty a) to repair damage resulting from attempts by personnel other than LYNX Technik representatives to install, repair or service the product; b) to repair damage resulting from improper use or connection to incompatible equipment; c) to repair any damage or malfunction caused by the use of non LYNX Technik supplies; or d) to service a product which has been modified or integrated with other products when the effect of such modification or integration increases the time or difficulty servicing the product.

THIS WARRANTY IS GIVEN BY LYNX TECHNIK WITH RESPECT TO THIS PRODUCT IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED. LYNX TECHNIK AND ITS VENDORS DISCLAIM ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. LYNX TECHNIK`S RESPONISIBILITY TO REPAIR AND REPLACE DEFECTIVE PRODUCTS IS THE SOLE AND EXCLUSIVE REMEDY PROVIDED TO THE CUSTOMER FOR BREACH OF THIS WARRANTY. LYNX TECHNIK AND ITS VENDORS WILL NOT BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTAL DAMAGES IRRESPECTIVE OF WHETHER LYNX TECHNIK OR THE VENDOR HAS ADVANCE NOTICE OF THE POSSIBILITY OF SUCH DAMAGES.

Regulatory information

Europe

Declaration of Conformity

We LYNX Technik AG
Brunnenweg 3
D-64331 Weiterstadt
Germany

Declare under our sole responsibility that the product

TYPE: R PS 5010

To which this declaration relates is in conformity with the following standards (usage in environments E1 – E3):

EN 55103-1 /1996
EN 55103-2 /1996
EN 60950 /2001

Following the provisions of 89/336/EEC and 73/23/EEC directives.

Winfried Deckelmann

Bickenbach, January 2003

Place and date of issue *Legal Signature*

USA

FCC 47 Part 15

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to the part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense

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Getting Started

Packaging

The shipping carton and packaging materials provide protection for the power supply during transit. Please retain the shipping cartons in case subsequent shipping of the product becomes necessary.

Product Description

The R PS 5010 is a high quality Power Supply for the R FR 5010 and R FR 3010 rack frames designed primarily for broadcast and professional applications.

The R PS 5010 is a sophisticated power system designed for demanding applications. The unit features integral microprocessor control and sophisticated power filtering. The unit also has a temperature controlled DC fan and onboard LED alarm and status indication.

External alarming is possible via GPO connections and when combined with a LYNX control system remote status monitoring and error reporting is possible.

When used as a pair in a rack system, full redundancy can be achieved and the supplies are hot swappable.

The P PS 5010 is part of the Series 3000 and 5000 ranges of modular products, which offer high quality, modularity and flexibility for a variety of applications

Functional Diagram

Figure 1 below is the functional diagram outlining the power system used in the R FR 5010 and R FR 3010 rack systems.

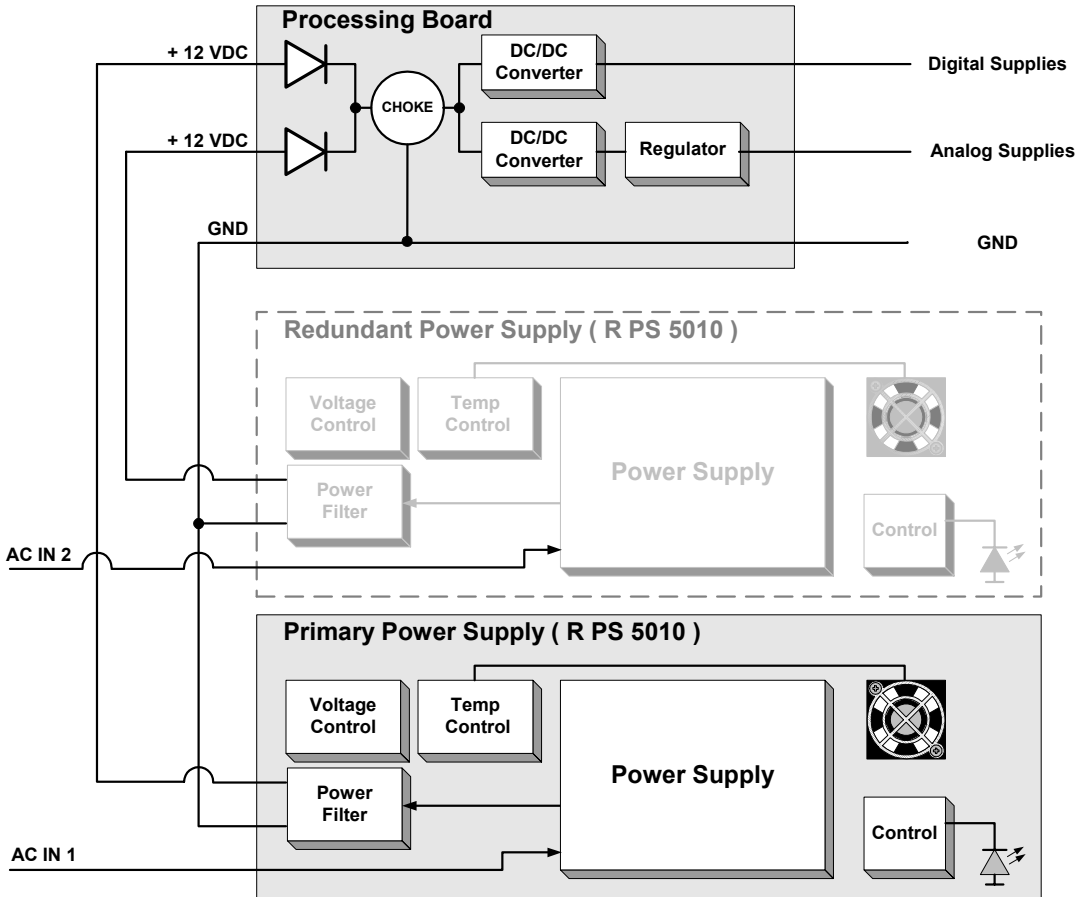

Figure 1- Power System

Supply Layout

Figure 2 shows the physical layout of the R PS 5010 The unit is a self-contained system designed to plug into the available slots in the R FR 3010 and R FR 5010 rack frame systems. Identical supplies are used for Primary and Redundant use.

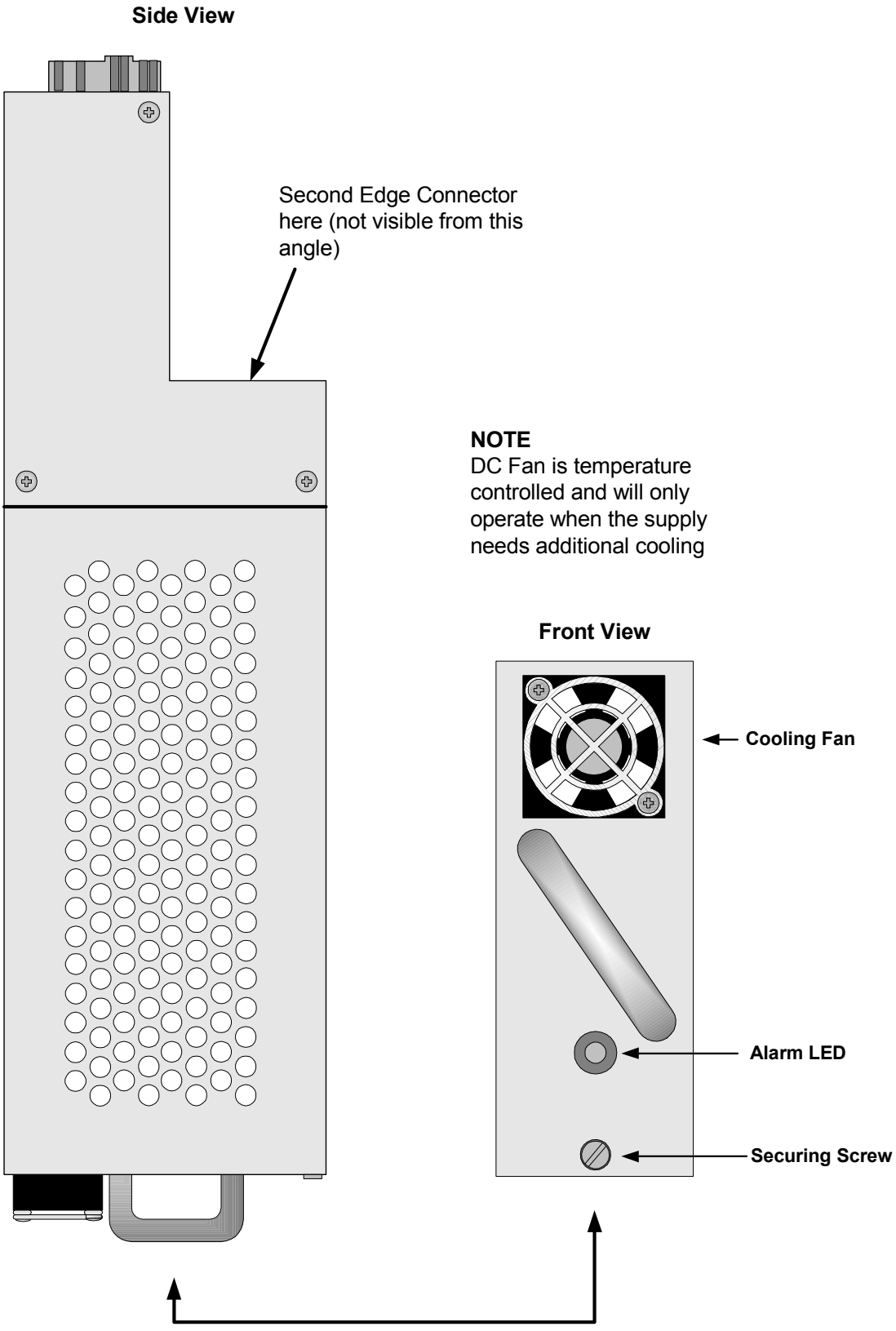
Side View
Second Edge Connector here (not visible from this angle)
NOTE
DC Fan is temperature controlled and will only operate when the supply needs additional cooling
Front View
Cooling Fan
Alarm LED
Securing Screw

Figure 2 – Power Supply Layout

Installation

Mechanical

The unit is designed to slide into one of the two available slots in the R FR 3010 and R FR 5010 rack frame assemblies. Please refer to the reference manuals for these items for location.

When removing and installing the supply please ensure the front securing screw is used. (Figure 2) This will prevent the supply from coming loose and possibly disconnecting power. This is especially important in mobile applications where the system could be subject to frequent physical shocks.

NOTE
The Power supply should fit easily into the provided slot excessive force should not be required. Please do not "slam" the modules into the racks; this can cause serious damage to the edge connectors and motherboard sockets.

Electrical Installation

Hot Swapping

The power supplies support full hot swap, so it is not necessary to remove AC power to replace a defective Primary or Redundant R PS 5010 supply.

If the replacement supply does not function the AC fuse for this power inlet may be defective. Refer to the appropriate Rack Frame manuals for location and fuse ratings.

NOTE. The DC fan is temperature controlled so when a new supply is installed the fan will not initially spin. This is normal

Settings and Control

There are no user setting for the R PS 5010 Power supply, the unit is self contained and factory preset and tested for normal operation.

GPO Alarms

The power supply will report alarms through a GPO output provided in the Rack Frame. Please refer to the manuals for the respective rack frame for details on these connections.

Should a supply fault develop, the errors are alarmed and reported in the following ways:

- Via the LED on the located on the front of the supply (Figure 2).
- Via a two state GPO alarm provided on the alarm connector on the rack frame*
- Via the control system (if installed)

If the redundant power supply is installed, the system will switch supplies automatically in the event of primary supply failure, with no interruption to the normal operation of the rack.

** Please refer to the Rack Frame manual for more details on power supply alarms.*

LED Status Indicator

The P PS 5010 Power Supply has built in LED indicator that serves as status indication for the supply.

The LED can found on front of the Power Supply (figure 2) and the table below shows the error conditions.

LED Color	Condition
Green	Normal Operation
Yellow	Warning: High Temperature
Red Flashing	Warning: Voltage out of range
Red Continuous	Warning: Over Temperature
Off	Failure: Exchange Supply

If the controller option is fitted alarms will be reported into the monitoring system, GPO alarms can also be used to trigger external monitoring equipment.

Specifications *(R PS 5010)*

Inputs

AC Line Voltage	100 - 240 VAC +/- 10%
AC Line Frequency	50 Hz to 60 Hz +/- 5%
Connection	Via module card edge connector

Outputs

DC Voltage	12 VDC
Current	Max 11A
Alarm Major	Contact closure to Alarm Common
Alarm Minor	Contact closure to Alarm Common
Alarm Common	Common for Alarm contacts
Output Connections	Via module card edge connector

Performance

Cooling	Normal use = convection cooling. DC fan automatically activated if needed

Electrical Specifications

Operating Voltage	12 VDC
Power Consumption	130 W (max)
Connection	Via module card edge connector
Safety	IEC 60950/ EN 60950/VDE 0805

Mechanical

Size	260mm x 78mm x 33mm
Weight	0.5 kg

Ambient

Temperature	+5°C to 40°C
Humidity	Max 90% non condensing

Supplied Accessories

Documentation	R PS 5010 Reference Manual

Parts List

Due to the very dense design and high level of integration there are no user serviceable electronic assemblies within the R PS 5010 Power Supply.

R PS 5010 Power Supply (complete)

Description	Power Supply
Model Number	R PS 5010
Part Number	6.155.001.011

Service

If you are experiencing problems, or have questions concerning your R PS 5010 Power Supply please contact your local distributor for assistance.

We offer a fixed cost service exchange program for defective Power Supplies out of Warranty. Please contact your distributor or check our web site for details on this program.

More detailed information and product updates may be available on our web site:

www.lynx-technik.com

You will also find links to contact us directly for assistance.

Contact Information

Please contact your local distributor; this is your local and fastest method for obtaining support and sales information.

LYNX Technik can be contacted directly using the information below.

Address	LYNX Technik AG Brunnenweg 3 64331 Weiterstadt Germany
Website	www.lynx-technik.com
E-Mail	info@lynx-technik.com

LYNX Technik manufactures a complete range of high quality modular products for broadcast and Professional markets, please contact your local representative or visit our web site for more product information.

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